ENGINEERING OPERATIONS COMMITTEE MEETING
MINUTES
FEBRUARY 3, 1994
10:00 A.M.
R. A. WELKE'S OFFICE

Present:

R. A. Welke	G. D. Dobie
L. A. Kinney	R. E. Maki
J. D. Culp	L. R. Brown
J. D. O'Doherty	P. F. Miller
C. J. Arnold	J. W. Reincke

Guests:

T. Fort - FHWA
I. Patel
N. Bekmanis
B. Lower

OLD BUSINESS

1. **Pavement Selection Review Committee - Project Approval Policy. W. Turner.**

As requested at the January 6, 1994, EOC meeting, Bil Turner, representing the Pavement Selection Review Committee (PSRC), presented proposed guideline changes for submitting pavement designs to the EOC for approval. The concrete industry is expressing concerns regarding this policy change.

Action: R. A. Welke will schedule a meeting with the industry in early March to address their concerns before a policy decision is made.

2. **Operating Instruction 3000.01 - Engineering Operation Committee. R. A. Welke.**

In response to the January 1994 meeting, this O.I. (dated 8-12-80) was reviewed and comments were received.

Action: Formal review comments are to be sent to J. D. Culp who will assimilate them and distribute a draft revision for review at the March 3 meeting.

3. **Value Engineering - FHWA Viewpoint. G. D. Taylor**

The Federal Highway Administration is taking a stronger position on Value Engineering (VE). Future regulations will require all states to have a formal VE program, including both design and construction. FHWA is encouraging MDOT to get some experience in VE before it is mandated.

Action: Tabled until the March meeting at which Gary Taylor will give an overview of the FHWA position.

4. **Status of Concrete Quality Control/Quality Assurance Specifications. I. Patel.**

It was decided that the concrete performance specifications (i.e. QC/QA) would remain in Special Provision form, anticipating more changes over the next two years. Refinements will be necessary before it becomes a Supplemental Specification. It was emphasized that quality control is the contractor's responsibility and should not be detailed in our 1996 spec book. Quality assurance is MDOT's responsibility and reference to it in the 1996 book shall be in general terms only. The details of performance specifications will be left to the Special Provisions at first and later in Supplemental Specification form. It was recommended that we start referring to our QA requirements as "Performance Specifications" and try to be more uniform in our treatment of all performance specifications (Concrete, Bituminous, Aggregates, etc.).

Action: The Division 6 and 7 spec book committees are directed not to spend a significant amount of effort rewriting the 1990 methods specifications. Reference to our performance based Special Provisions will appear in the 1996 book, but details will remain in the Special Provision.

Also, portions of our Standard Specifications that MDOT no longer needs are to be deleted from the 1996 book. Agencies outside MDOT, such as counties and cities, can reference our 1990 book or write their own method specifications.

5. **Detroit Area/Davison Freeway Drainage Study. Natalie Bekmanis.**

Natalie Bekmanis reviewed the Detroit Area/Davison Freeway Drainage Study as prepared by a consultant. Before the design of the Davison Freeway reconstruction project can continue, decisions are required regarding drainage. Five alternatives were discussed for separating the area's depressed freeway drainage from the Detroit sewer system. Four options were also presented for the initial Davison Freeway storm water retention/pump system.

Decision: Separation of our depressed freeway storm water runoff from the city of Detroit combined sewer system is desirable and Alternative 2, which includes expanded retention facilities for the Davison Freeway, was approved.

Two near-term options for drainage separation for the Davison Freeway reconstruction were approved for further design consideration. Both Options 1 and 2 construct an initial retention/pump system capable of separated discharge via a future gravity sewer. The options differ in their point of discharge; Option

1 discharges to the Lodge (M-10) Freeway and Option 2 discharges to the Chrysler (I-75) Freeway.

Action: Design will proceed with reconstruction plans based on these selections.

6. **Effect on Tort Liability Resulting from Proposed Research Instrument and Data Collection. P. F. Miller**

As a result of a recommendation made at the December 1993 EOC meeting, memos were sent to the Engineering Services Division asking for a risk management assessment of the proposed research instrument and to the Attorney General's office regarding the effect of the instrument's data generation on tort liability.

Paul Miller reviewed his comments and concerns about potential risk factors that must be

addressed. He recommended that Research proceed in developing this technology which will improve the quality and safety of our highways. Bob Welke has not received a response from the AG's office.

Decision: Approve the development of the instrument for research purposes only.

Action: Paul Miller will contact Brenda Turner and will pass on any additional concerns to Jon Reincke, Engineer of Research and Technology.

NEW BUSINESS

1. **Status of "Bituminous SHRP Tests Implementation". L. K. Heinig.**

The Materials and Technology Bituminous Services Unit is moving toward implementation of the SHRP bituminous research recommendations. SHRP binder test equipment is installed in their laboratory and technicians are trained in its use. Comparative tests with other states and our asphalt suppliers will continue for another four months before specifications are rewritten based on these procedures. Some 1994 trial projects using the SHRP binder specifications are planned. Full implementation may occur in 1995.

Development of the SHRP mixture test equipment is behind schedule. When it becomes available, it will require about four months of testing to develop a correlation with the Marshall test for theoretical maximum density. Specifications will be modified accordingly.

A research project is underway to gather the pavement temperature data required by the SHRP mix design procedure, SUPERPAVE. Field installations will be completed this year and various layer temperatures will be continuously monitored.

We will construct a few Type I low volume (1 million ESALS) designs in 1994 under the SHRP bituminous mixture procedure. Full implementation is expected in 1996.

The Type III high volume (30 million ESALS) designs may be done through a state pooled fund group in our region because of high equipment costs.

No action is required.

2. **Field Problems with Raised Pavement Markers (RPMs). J. D. O'Doherty and J. D. Culp.**

An increased number of complaints and concerns have been received this year about RPMs. Several factors come into play including an RPM model change and a new plow blade mounting system. Until the problems are pinpointed and resolved, there is a temporary moratorium on the installation of RPMs, which has resulted in the postponed letting of the three remaining district RPM projects. However, RPMs that are incidental to major work in other jobs should not be deleted at this time in anticipation of rapid resolution of the noted concerns.

Action: A meeting is scheduled for mid-February to identify and address the problems with these pavement markers. John O'Doherty and Bob Maki will report back to the EOC with a recommendation on the future use of RPMs.

Signed copy on file at M&T

cc: EOC Members
District Engineers
G. H. Grove G. J. McCarthy R. D. Till J. Becsey
J. M. Ritchie D. L. Coleman L. K. Heinig J. Murner
E. D. Winkler H. J. Nyquist W. C. Turner D. L. Smiley
L. W. Martin G. L. Mitchell R. W. Muller R. E. Nordlund
L. E. DeFrain C. G. Cantrell J. E. Norton C. W. Whiteside
I. B. Patel C. Roberts G. H. Gallup A. G. Ostensen
G. Bukoski